

Listing of Claims:

1. (Currently Amended) A method for providing bandwidth sensitive data compression in a data processing system, the method comprising the steps of:
compressing data using an first compression routine providing a first compression rate;
tracking the throughput of the data processing system to determine if the first compression rate provides a throughput that meets a predetermined throughput threshold; and
when the tracked throughput does not meet the predetermined throughput threshold,
compressing data using a second compression routine providing a second compression rate that is greater than the first compression rate, ~~if the tracked throughput does not meet the predetermined throughput threshold~~ to increase the throughput of the data processing system to at least the predetermined throughput level.
2. (Original) The method of claim 1, wherein the first compression routine comprises an asymmetric routine and wherein the second compression routine comprises a symmetric routine.
3. (Original) The method of claim 1, further comprising the steps of utilizing the second routine to perform compression until the throughput of the data processing system is determined to meet the predetermined throughput threshold, and then reusing the first compression routine.
4. (Original) The method of claim 3, wherein the first compression routine comprises a default asymmetrical algorithm.
5. (Original) The method of claim 1, further comprising the step of processing a user command to load a user-selected compression routine for compressing data.

6. (Original) The method of claim 1, further comprising the steps of:
processing a user command to compress user-provided data;
automatically selecting a compression routine associated with a data type of the user-provided data.

7. (Original) The method of claim 1, wherein the step of tracking throughput comprises tracking a number of pending access requests to a storage device.

8. (Original) The method of claim 1, wherein the step of tracking throughput comprises tracking a number of pending requests for data transmission over a communication channel.

9. (Currently Amended) A method for providing accelerated data storage, comprising the steps of:

receiving a digital data stream at an input data transmission rate that is greater than a data storage rate of a target storage device;

compressing the digital data stream at a compression rate that increases the effective data storage rate of the target storage device, wherein the compression rate is at least equal to the ratio of the input data transmission rate to the data storage rate so as to provide continuous storage of the input digital data stream at the input data transmission rate; and

storing the compressed digital data stream in the target storage device;

wherein the step of compressing comprises the steps of:

compressing data using an first compression routine providing a first compression rate;

tracking an amount of pending access requests to the storage device to determine if the first compression rate provides a throughput that meets a predetermined throughput threshold;
and

compressing data using a second compression routine providing a second compression rate that is greater than the first compression rate, if the tracked throughput does not meet the predetermined throughput threshold.

10. (Canceled)

11. (Currently Amended) A system for providing bandwidth sensitive data compression, comprising:

a data compression system for compressing and decompressing data input to the system;
a plurality of compression routines selectively utilized by the data compression system;

and

a controller for tracking the throughput of the system and generating a control signal to select a compression routine based on the system throughput,

wherein when the controller determines that the system throughput falls below a predetermined throughput threshold, the controller commands the data compression engine to use a compression routine providing a faster rate of compression so as to increase the throughput.

12. (Canceled)

13. (Original) The system of claim 11, further comprising a plurality of access profiles, operatively accessible by the controller, to determine a compression routine that is associated with a data type of data to be compressed.

14. (Original) The system of claim 11, wherein the system comprises a data storage controller, wherein the system throughput comprises a number of pending access requests to a storage device.

15. (Original) The system of claim 11, wherein the system comprises a data transmission controller, wherein the system throughput comprises a number of pending transmission requests over a communication channel.

16. (Currently Amended) A program storage device readable by a machine, tangibly embodying a program instructions executable by the machine to perform method steps for providing bandwidth sensitive data compression in a data processing system, the method comprising the steps of:

compressing data using a first compression routine providing a first compression rate; tracking the throughput of the data processing system to determine if the first compression rate provides a throughput that meets a predetermined throughput threshold; and when the tracked throughput does not meet the predetermined throughput threshold, compressing data using a second compression routine providing a second compression rate that is greater than the first compression rate, ~~if the tracked throughput does not meet the predetermined throughput threshold~~ to increase the throughput of the data processing system to at least the predetermined throughput level.

17. (Currently Amended) A program storage device readable by a machine, tangibly embodying a program instructions executable by the machine to perform method steps for providing accelerated data storage, the method steps comprising:

receiving a digital data stream at an input data transmission rate that is greater than a data storage rate of a target storage device;

compressing the digital data stream at a compression rate that increases the effective data storage rate of the target storage device, wherein the compression rate is at least equal to the ratio of the input data transmission rate to the data storage rate so as to provide continuous storage of the input digital data stream at the input data transmission rate; and

storing the compressed digital data stream in the target storage device;

wherein the step of compressing comprises the steps of:

compressing data using a first compression routine providing a first compression rate;

tracking an amount of pending access requests to the storage device to determine if the first compression rate provides a throughput that meets a predetermined throughput threshold; and

compressing data using a second compression routine providing a second compression rate that is greater than the first compression rate, if the tracked throughput does not meet the predetermined throughput threshold.